

The Flora of Namonuito and the Hall Islands

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APPROXIMATELY 160 miles northwest of Truk, in the Caroline Islands, lies Namonuito Atoll, straddling the 150th W. meridian. Lying successively to the east are Fayu, Nomwin, and Murilo atolls, comprising the Hall Islands. Together these strips of land amount to no more than a few square miles, but they are scattered over three and a half degrees of latitude, approximately eight and a half degrees north of the equator. Namonuito consists of some seven major islets and several minor ones. Beginning at the southwest, these are: Ulul (or Olol), Namonuito, Magerik (Magurchuk), Magur (Magerlap), Ono, Onari, Weltot, and Pisarach. Sixty miles east is Fayu, an uninhabited island which is visited from time to time because of the abundant fish and turtles. Thirty miles farther east is Nomwin Atoll, with its two inhabited islets, Nomwin and Fananu, and other smaller islets. East again of Nomwin is Murilo Atoll, of which Ruo and Murilo islets are inhabited. These major islets are strips of coralline land, rising to a height of 5 feet or rarely somewhat more, usually with a central depression.

The general aspect of any one of these islets is much like any other; a reef, a strip of beach, and the coconut-palm skyline. Granted the sparse flora and the omnipresent coralline soils, they have rather considerable variation. The three atolls here considered differed not only among themselves but also as a group differ from other atoll groups, such as the Marshall and the Gilbert islands. There are important differences in the floristic make-up and, consequently, in the ecological balance of the species present. Yet in a broader sense there is a remarkable sameness about the forested atolls of the Pacific, and many of the

species herein recorded might reasonably be expected to occur on any of the Micronesian, or even Polynesian, atolls. This applies not only to indigenous species but to weeds and crop plants.

Namonuito, Nomwin, and Murilo were visited by the author in June and July of 1957 while collecting *Pandanus* specimens for Dr. Harold St. John's National Science Foundation Project, which was begun at the University of Hawaii in 1955.

These atolls have a fairly constant temperature usually ranging from 75° to 90° F.; breezes are nearly always present; rainfall, though scattered, supports a thriving forest flora in the less disturbed islets. Extreme dryness, such as may be encountered in the northern Marshall Islands, is not a feature of this area, though droughts may occur. The heat is most extreme on sandy spits with little or no plant cover, situations which are unfavorable to many species but which may be colonized by *Ipomoea pes-caprae*, *Scaevola frutescens*, *Fimbristylis atollensis*, and *Lepturus repens*.

Several of the islets have swampy central depressions, and on Pisarach there is a true swamp at the southern end with characteristic swamp species including *Acrostichum aureum*, *Cyclosorus goggilodus*, and *Bruguiera conjugata*. On certain islets, ordinarily uninhabited, a rather well-developed *Pisonia* forest flourishes, usually in company or codominant with *Eugenia*. The trees are large-boled and may rise to 70 or 80 feet. The undisturbed forests have little or no ground cover beneath the trees. These presumably native forests are now much cut-over and cleared, or burned for clearings. In these clearings a wide array of species, both native and weedy, occurs; near villages various crop plants are cultivated, namely, coconut palms, taros, bananas, papayas, and tobacco. Other large trees fre-

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quently found are *Calophyllum Inophyllum*, *Ficus tinctoria*, *Barringtonia asiatica*, and *Ochrosia oppositifolia*, which are noticeable along the beaches behind the front ranks of *Scaevola* and *Messerschmidia*. *Ochrosia* tends to form pure stands here and there, and in such places its seedlings are very numerous. Besides these tree species, and a few others, most of the vegetation is of shrubs, rising to 15 or 25 feet on occasion, and of vines, herbs, and crop plants. Needless to say, the flora is not a rich one. There are 94 species recorded here, of which about 52 can be reasonably construed as indigenous; of the remaining 42 species, 22 are clearly introduced food or ornamental plants; the remaining 20 species are presumably accidental introductions and weeds.

Nevertheless there is some diversity in the vegetation; islets differ from one another, and each islet consists of two or more zones. The indigenous ecological zones probably consisted of the following:

(1) The strand forest, the outermost line of vegetation on the beaches, consisting of *Scaevola*, *Messerschmidia*, *Morinda*, and *Guetarda* as the usual dominants, with *Ochrosia*, *Terminalia*, *Pandanus*, *Cordia*, *Allophylus*, and *Hernandia* occurring locally as individuals or sometimes in small stands. Less frequent members of the strand association are *Suriana* and *Sophora*. Several creeping or scandent vines are present, chiefly *Ipomoea pes-caprae*, *I. gracilis*, *Vigna*, *Canavalia*, *Triumfetta*, and the parasitic *Cassytha*. *Wedelia* is a scandent or rarely erect shrub of both exposed and shady areas. The grass *Lepturus* and the sedge *Fimbristylis* are both very common, but tend to occur most abundantly in a savannah-like subassociation of windswept narrow extremities, often in company with stunted, scattered shrubs, especially *Pandanus*.

(2) *Pisonia* forest. Before the coming of the Micronesian inhabitants, it seems possible that many, if not all, of the islets may have had dense pure stands of *Pisonia grandis*, the viscid fruits of which are spread by birds. Some remnants of these stands remain on

Megererik, Magur, and according to another observer, on Fayu. As noted by the author, the *Pisonia* forest on Magur was not a pure stand, but contained many large trees of *Eugenia javanica*. This is perhaps the result of deliberate cultivation or at any rate a long-term result of such cultivation. *Eugenia* is not known from the Marshall Islands and seems not to be present on any of the Caroline Islands atolls in the vicinity of Ponape (such as Mokiell, Pingelap, Ngatik, Nukuoro, and Kapingamarangi).

(3) Intermediate forest. This comprises an area variable in extent, sometimes lacking, sometimes replacing the *Pisonia* forest. It is actually not a homogeneous association but consists of varying proportions of the smaller trees, either in stands or mixed, including *Ochrosia* (usually in pure stands), *Pipturus*, *Allophylus*, *Pandanus*, *Barringtonia* (which may also be in the open strand), *Calophyllum* (more usually along the strand), and occasionally *Hibiscus tiliaceus*.

(4) Coconut and breadfruit forests. These dominate most of the central areas of the islets and are the result (at least originally) of deliberate planting. The seeded breadfruit varieties replenish the forest quickly and naturally, and there are on some islets almost pure stands of breadfruit trees. Often they will be accompanied by *Ficus*, *Eugenia*, and *Crataeva*. The coconut groves may be open, with a sparse ground cover, or choked with shrubs. On Pesarach many coconuts grow in a sub-swampy area.

(5) Swamps, both artificial and natural, occur in several islets. The artificial swamps are pits planted with *Cyrtosperma* or *Colocasia*. On Pesarach Islet the naturally swampy southern end is partially utilized for taro cultivation. A few trees of *Bruguiera conjugata* occur here, characterized by white calyces rather than the usual glossy red calyces, and herein described as forma *alba*. Other swamp species include the ferns *Acrostichum aureum* and *Cyclosorus goggilodus*, and the small sedge *Eleocharis geniculata*.

The intertidal zone, whether of calm, sandy-bottom lagoons or of coral pavement or boulders, is a very important ecological feature of an atoll, but except for the ubiquitous marine angiosperm *Thalassia*, which was noted at Nomwin Atoll, the vegetation is of algae and is not cataloged here.

Collections were made on Ulul (June 22, 1957), Magur (June 29), Ono (June 30), and Pisarach (July 2) islets of Namonuito Atoll; on Nomwin (July 3) and Fananu (July 4) islets of Nomwin Atoll; and on Ruo Islet (July 5) of Murilo Atoll. The specimens have been deposited in the herbarium of the Bernice P. Bishop Museum, Honolulu, Hawaii.

Economy

The island economy is completely agricultural. The coconut furnishes, in the form of copra exports, the principal or only source of income, as well as a wide array of uses for food, shelter, and cordage. Wherever possible, coconut palms have been planted and the original forests replaced. In Namonuito Atoll, on Magererik and Magur islets, there are some stands of *Pisonia* forest in relatively undisturbed condition, however. These are usually intermixed with breadfruit and *Eugenia* trees. Breadfruits are one of the staple foods; the tubers of *Cyrtosperma*, and to a lesser degree, of *Colocasia*, are the other staples. Breadfruits are preserved for future use in shallow depressions in the earth which are lined with banana leaves and covered with stones. In this manner they are kept several months as a reserve to be used in the months during which the breadfruit trees bear no fruit. Breadfruit seeds furnish a minor but well-liked source of food. *Alocasia*, the third "taro," is not actively cultivated, but grows spontaneously and is used on occasion for food, especially during droughts or famines. *Tacca* is a similar reserve food. Papayas, bananas, pumpkins, sweet potatoes, and pandanus fill out the vegetable diet. Chickens, pigs, and seafood are the main sources of meat. Much of the income derived from the sale of

copra is spent for imported foods, such as rice, flour, sugar, coffee, and tinned meats, as well as for clothing, hardware, and tobacco. Most islets also have some plants of *Nicotiana* to furnish tobacco between visits of the copra steamer.

Brief Description of the Islets

The islet of Ulul, or as it is sometimes spelled, Olol, is dominated by coconut palms. Other trees include breadfruits, *Pandanus*, *Ficus*, *Eugenia*, *Hernandia*, *Barringtonia*, *Hibiscus*, *Allophylus*, *Premna*, *Calophyllum*, and *Casuarina*. Abundant shrubs are *Scaevola*, *Messerschmidia*, *Callicarpa*, *Pipturus*, and *Clerodendrum*. *Glochidion* and *Wedelia* are also rather frequent. The low herbaceous species include *Oplismenus*, *Thuarea*, *Fimbristylis*, *Microsorium*, *Nephrolepis*, *Portulaca*, *Ipomoea*, and *Triumfetta*; climbing and creeping vines include the very abundant *Piper fragile?* and *Piper ponapense*, *Vigna*, *Canavalia*, and *Cassytha*. Introduced weeds include *Eleusine*, *Chrysopogon*, *Cenchrus*, all grasses, and *Euphorbia hirta*, *E. thymifolia*, and *Vernonia*. In the village, *Plumeria*, *Nerium*, *Crinum*, *Hibiscus rosa-sinensis*, *Mirabilis*, and *Zephyranthes* are cultivated as ornamentals. Characteristic of Ulul and the greater part of Namonuito Atoll is the great abundance of *Piper* vines in the forest, forming a ground cover and climbing high up tree trunks. *Glochidion*, however, is infrequent here, and is not nearly so important a component of the under-story as it is on Nomwin Islet.

On Magur Islet, there is a good stand of forest, consisting of *Pisonia*, *Eugenia*, and breadfruits. The second story of this forest, developed especially at the forest fringes, consists of *Morinda*, *Allophylus*, *Crataeva*, *Ficus*, papayas, and seedlings of the upper-story trees. The ground cover is chiefly *Piper fragile?*, *Nephrolepis*, *Microsorium*, *Wedelia*, and *Vigna*. *Asplenium nidus* is an abundant epiphyte and is also sometimes terrestrial. The soil developed here is a light black organic mulch mixed with white coral sand and coral

fragments. In depth this soil may reach six inches, a fairly good soil for an atoll.

Ono Islet consists chiefly of coconut groves and the usual strand species. *Pisonia* is absent, and so, apparently, is *Glochidion*.

Pisarach Islet has both the largest village (over 100 people) and the most varied vegetation. Although no *Pisonia* forest was seen, the abundant large breadfruit trees, mixed with *Eugenia*, *Ficus*, *Ochrosia*, *Crataeva*, and coconut palms make up a tall shady forest with a sparse under-story over much of the islet. The southern end of the islet is a natural swamp. Irrigation channels crisscross part of it, and *Cyrtosperma*, *Colocasia*, and bananas are planted. Most of the swamp is, however, a tangled mass of small trees, clambering vines, and clumps of marsh fern, all rooted in mud or standing pools. The seaward margin of the area is sandy, and behind this is a line of coral fragments, which quickly merges into the inner area of black, sandy, then mucky soil. Coconuts grow here to some extent. Trees of the swamp are *Hibiscus tiliaceus*, *Barringtonia*, *Premna*, *Pandanus*, *Eugenia*, and *Bruguiera*. In the cultivated portions, besides the taros, there are *Eleocharis*, *Cyclosorus*, *Cyperus*, *Jussiaea*, *Vigna*, *Clerodendrum*, and *Digitaria*. Forming thickets or clumps, often over large areas, is *Acrostichum*, and *Vigna* and *Clerodendrum* scramble over the other species. In the muddy but not water-covered areas coconut palms, breadfruits, *Ficus*, *Eugenia*, and *Crataeva* are found, with *Nephtrolepis*, *Microsorium*, *Piper*, *Thuarea*, and *Digitaria* as ground cover.

Nomwin Atoll is notable for the abundance of *Glochidion*, which is the dominant shrub in the forest under-story. It accounts for at least fifty per cent of the ground cover on Nomwin Islet. The eastern extremity of Nomwin Islet, however, is a wind-swept savannah dominated by dwarf stunted pandanus and the rosette-forming *Fimbristylis atollensis*. The usual strand shrubs occur only as severely stunted individuals. The weedy *Eragrostis amabilis* is abundant here also, complete flowering speci-

mens of which may measure only one inch in length. The soil is a rough mass of coral fragments slightly intermixed with fine sand, and no organic layer except fallen pandanus leaves.

Murilo Atoll is very similar to Nomwin, being dryish, with no swamps, the soil light, thin, and sandy. The islet profile shows a considerable central dip, the seaward rim being built up of coral boulders forming a "cliff" some eight feet in height, sloping steeply to a narrow sandy beach fronted by a reef of coral pavement. The forest is chiefly coconut palms, breadfruits, *Eugenia*, *Pandanus*, *Crataeva*, and the strand trees. The forest under-story is mainly *Wedelia*, both species of *Piper*, *Calli-carpa*, *Vigna*, *Morinda*, and *Ipomoea gracilis*. *Glochidion* is conspicuously absent. The lagoon shore is dry, wind-swept, and open; it is notable for the presence of *Suriana*, *Sophora*, and *Euphorbia Chamissonis*, all in great abundance, as well as the usual strand species.

As can be seen from the brief summaries above, the floristic composition and the ecological patterns of the various islets differ to a surprising extent. The abundance of *Piper* on many islets, and the abundance of *Glochidion*, on Nomwin especially, though also to a lesser extent on Ulul, is in marked distinction from atolls in the Marshall Islands, or from Moki-el, Pingelap, Ngatik, Nukuoro, or Kapingamarangi. Curiously, the reef islets of Truk, like Nomwin, abound in *Glochidion*; but on most of Namonuito and Murilo it is apparently absent. On the high islands of Truk is a large shrub, abundant on low hillsides, which is probably *Glochidion ramiflorum* Forst. Whether the atoll *Glochidion* is conspecific is a matter of doubt, and until a monographic treatment appears, there seems little value in appending one of the dubious names to these plants. As Croizat (1943) shows, the delimitation of species in the genus is still highly problematic. Another plant quite common on both the high and low islands of Truk, but which apparently does not occur at all in Namonuito or the Hall Islands, is *Polyscias grandifolia*.

Vernacular Names

The people of the Namonuito and Hall islands are culturally and linguistically close to the Trukese. The plant names recorded here are frequently identical with, or at least similar to, the Trukese names; but variations in pronunciation, especially in certain characteristic consonant changes, will be frequently noted. The spelling used here is only an approach to the actual pronunciation, but should be understandable if the following rules are followed: the vowels are pronounced as in Spanish, except that à is the short sound, as in the English "fat"; ö, with the umlaut, is equivalent to the German sound of ö or oe; the r is rolled; j, ch, and sh are more or less equivalent and interchangeable sounds, depending on locale and other factors; k and g are similarly often interchangeable; and the consonants l, n, and r, are very flexible, and interchange or supersede each other from area to area. A few differences in the spoken language between Namonuito, Nomwin, and Murilo occur, mostly in pronunciation, and even between different islets of Namonuito Atoll (which may be out of sight of each other, over the horizon). For example, the edible pandanus variety called "kenlau" in Ulul is "kinlau," "killau," "kirau," or "genlau" in other islets; and on Truk it may be called "killau," "sillau," or even "sinnau." It must be cautioned that the names given are very local. For further information on the Trukese language, consult Samuel H. Elbert's

Trukese-English Dictionary published by the U. S. Naval Military Government.

Check-list

The catalog of the flora is brief and includes no descriptions or full synonymies. However, a key is supplied to aid in the identification of species. Most of the plants are well known and widely distributed, but a few present problems of nomenclature or identification which are indicated.

The families are arranged according to Engler and Prantl merely for convenience. The original source of the species description or combination is given for each plant.

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KEY TO THE SPECIES

Though most of these plants are familiar to botanists, I have included this key for the use of anyone who may visit these islands. The key is of course highly artificial, and should not be used in other areas; it is not technical, and certain oversimplifications and omissions of more fundamental characters will be overlooked, I hope, in the interest of simplicity.

Group I. Ferns

Flowerless plants bearing spores usually as a brown powder in sporangia grouped in sori as round dots, long lines, or solid masses, on the backs of the fronds or pinnae

Fronds simple, up to several feet long, forming a large rosette; sori in long oblique lines.....**Asplenium**

Fronds lobed or divided

- Spores not grouped in sori, but covering the entire back of the fertile frond. **Acrostichum**
- Spores grouped in sori, not covering the back of the frond
 - Fronds deeply parted, the segments entire. **Microsorium**
 - Fronds pinnate, the segments dentately or crenately lobed or parted
 - Segments crenately lobed; sori reniform; forest fern with fronds up to 4 ft. long. **Nephrolepis**
 - Segments dentately parted; sori round; swamp fern with fronds usually less than 2 ft. long. **Cyclosorus**

Group II. Flowering Plants

- A. Trees or shrubs with woody stems (See also B and C)
 - Leaves minute, toothlike, borne at the joints of the needlelike, green, jointed stems which function as leaves; fruit a small woody cone. **Casuarina**
 - Not as above
 - Leaves 8–12 ft. long, pinnate; trunk unbranched. **Cocos**
 - Leaves not as above; trunk usually branched
 - Leaves 2–7 ft. long, spiny along the edges and along the midrib on the underside; fruit a head of green to orange woody drupes. **Pandanus**
 - Leaves and fruit not as above
 - Leaves lobed, parted, or divided into leaflets
 - Leaves lobed or parted, or subentire occasionally, but never divided into leaflets; sap milky
 - Leaves palmately-pinnately divided; trunk often unbranched; fruit pearshaped, fleshy, orange. **Carica**
 - Leaves pinnately lobed or parted, or occasionally subentire; fruit globose or elongate, green, of many carpels. **Artocarpus**
 - Leaves divided into leaflets
 - Leaves ternate, i. e., divided into 3 leaflets
 - Fruit red, globose, $\frac{1}{4}$ – $\frac{1}{2}$ in. diameter; flowers minute, greenish, borne in spikes. **Allophylus**
 - Fruit brownish or greenish, flecked with white, 4–10 in. long; flowers large, with white or creamy stalked petals. **Crataeva**
 - Leaves divided into more than 3 leaflets
 - Flowers yellow and red; leaflets smooth, green. **Caesalpinia**
 - Flowers yellow; leaflets with white hairs. **Sophora**
 - Leaves simple, not at all divided or lobed, never compound
 - Sap milky or yellowish, viscid
 - Sap yellowish; secondary leaf-veins curving-parallel; fruit spherical, woody, 1 in. diameter. **Calophyllum**
 - Sap milky-white; leaf-veins reticulate
 - Flowers less than $\frac{1}{8}$ in. long, hidden inside a globose, fruitlike organ
 - Leaves unequal at base; veins raised below; leaves up to 12 in. long. **Ficus tinctoria**
 - Leaves subequal at base; veins not conspicuously raised below; leaves 2–4 in. long. **Ficus ramentacea?**
 - Flowers larger than $\frac{1}{8}$ in. long, borne externally, with evident petals, $\frac{1}{4}$ – $\frac{1}{2}$ in. long

- Flowers white; petals linear, less than $\frac{1}{2}$ in. long; fruits twinned. **Ochrosia**
- Flowers red, yellow, or white, with broad petals
- Leaves narrowly elliptic or lanceolate, dull green, 4-6 in. long; flowers red, pink, or white, solid color. **Nerium**
- Leaves glossy, broader, elliptic to obovate, up to 1 ft. long; flowers red and yellow, yellow and white, or varicolored. **Plumeria**
- Sap clear, watery
- Stems and twigs thorny; small tree. **Citrus**
- Stems and twigs thornless
- Leaves cordate, more or less heart shaped
- Scandent shrub; leaves opposite; flowers yellow, in heads. . . . **Wedelia**
- Erect shrubs or trees; leaves alternate or spiral
- Flowers tubular, red or yellow; stamens joined in a column
- Flowers red; village shrub. **Hibiscus rosa-sinensis**
- Flowers yellow with a maroon eye. **H. tiliaceus**
- Flowers and stamens not as above
- Leaves with silvery hairs below; fruit a whitish fleshy berry. **Pipturus**
- Leaves smooth, hairless; fruit a black nut set in a green cup.
 **Hernandia**
- Leaves not cordate or heart shaped
- Leaves narrow, elliptic to lanceolate, with tapering pointed tips
- Scandent shrubs; leaves opposite; flowers tubular, white, with pink exerted stamens. **Clerodendrum**
- Erect shrubs or trees; flowers not as above
- Leaves opposite
- Trees; leaves smooth, hairless; flowers white to cream. . . **Eugenia**
- Shrubs; leaves with silver-green hairs below; flowers lavender or bluish. **Callicarpa**
- Leaves alternate or spiral
- Leaves varicolored red, green, and yellow. **Codiaeum**
- Leaves green, not varicolored
- Shrubs, leaves paper thin
- Flowers yellow, not enclosed by bracts; sparsely branching weak shrub. **Jussiaea**
- Flowers white, enclosed by conspicuous pink or magenta bracts; branching shrub. **Bougainvillea**
- Trees; leaves thick to leathery. **Bruguiera**
- Leaves broad, ovate or obovate, or if narrow the tip blunt to obtuse-angled
- Leaves fleshy, lanceolate-obovate, 1-2 in. long; flowers yellow; twiggy shrub. **Suriana**
- Not with the above combination of characters
- Leaves markedly obovate
- Flowers borne in spikes
- Fruit red, ovoid, keeled, slightly flattened, 1-seeded, ca. 1 in. long. **Terminalia**
- Fruit greenish-yellow, flat, with 2 horns, 2-seeded, $\frac{1}{2}$ - $\frac{3}{4}$ in. long
 **Soulamea**

- Flowers borne singly or in panicles
 - Flowers borne in panicles
 - Leaves with white hairs; flowers borne in a scorpioid cyme **Messerschmidia**
 - Leaves smooth green; flowers not borne in a scorpioid cyme
 - Flowers less than ½ in. long, bilabiate, bluish, borne in flat-topped corymbose panicles; stamens 4 **Premna**
 - Flowers more than ½ in. long, white, regular, borne in loose panicles; stamens numerous **Eugenia**
 - Flowers borne singly
 - Leaves opposite; flowers tubular, white, 4-petaled . **Guettarda**
 - Leaves alternate or spiral
 - Flowers tubular at base but split along the upper side, white; fruit a small white berry; leaves slightly fleshy **Scaevola**
 - Flowers with separate white petals, numerous pink stamens, 3 in. across; fruit a large woody box; leaves thin with a reddish midrib **Barringtonia**
 - Leaves round, ovate to elliptic, but not markedly obovate
 - Leaves round, concave, saucer-like **Nothopanax**
 - Leaves not as above
 - Flowers tubular, red or orange **Cordia**
 - Flowers never red or orange
 - Flowers borne in umbels; fruits narrow, sticky; large forest trees **Pisonia**
 - Flowers borne otherwise; fruits not as above; shrubs
 - Fuits compound, white, fleshy, 1–2 in. long **Morinda**
 - Fruits flattened, greenish, dry, ¼–½ in. wide, with red wedge-shaped seeds **Glochidion**

B. Herbs, sometimes very large, or vines (See also A and C)

- Marine plants growing in salt water, with thin flat elongate leaves **Thalassia**
- Not marine plants
 - Leafless vines with greenish or orange stems, parasitic **Cassytha**
 - Not leafless vines
 - Large herbs with auriculate leaves, growing from tubers
 - Leaves with rounded auricles
 - Leaves pale green or glaucous; plants seldom over 2 ft. tall in cultivation **Colocasia**
 - Leaves glossy green; plants up to 10 ft. or more **Alocasia**
 - Leaves with sharp-pointed auricles **Cyrtosperma**
 - Leaves not auriculate; roots not tuberous (except *Tacca*)
 - Leaves palmately then pinnately divided; flowers bearing numerous long threadlike filaments **Tacca**
 - Leaves and flowers not as above
 - Vines with climbing or creeping stems
 - Leaves ternate, of 3 leaflets

- Flowers pink; pods flattened. *Canavalia*
 Flowers yellow; pods cylindrical. *Vigna*
 Leaves not ternate
 Leaves pinnately compound. *Derris*
 Leaves simple or lobed, not compound
 Leaves lobed
 Leaves trilobate, hairy; fruit prickly; flowers yellow. *Triumfetta*
 Leaves bilobate, smooth; fruit smooth; flowers pink.
 *Ipomoea pes-caprae*
 Leaves not lobed
 Leaves cordate
 Leaves reddish or purplish. *Ipomoea batatas*
 Leaves green
 Flowers tubular, over 1 in. long
 Flowers pink or purple. *Ipomoea gracilis*
 Flowers yellow. *Cucurbita Pepo*
 Flowers minute, less than $\frac{1}{8}$ in. long, without petals, borne in
 spikes
 Spikes 1 in. long, $\frac{1}{4}$ in. wide. *Piper fragile?*
 Spikes 2-5 in. long, $\frac{1}{8}$ in. wide. *Piper ponapense*
 Leaves not cordate, glaucous below. *Piper ponapense*
 Not vines; erect or low herbs
 Large treelike herbs with entire leaves 3-6 ft. long; fruits in clusters, pendent,
 yellow, fleshy. *Musa*
 Not treelike
 Flowers 3-petaled, white; leaves oblong-lanceolate, in 2 ranks; roots with
 ginger odor. *Hedychium*
 Not as above
 Leaves elongate, forming rosettes, up to 3 ft. long
 Flowers pink; plants usually less than a foot high. *Zephyranthes*
 Flowers white; plants 2-5 ft. tall. *Crinum*
 Leaves not elongate, not in rosettes
 Sap milky
 Flowers small, white
 Leaves purplish; stems herbaceous
 Leaves minute, less than $\frac{1}{2}$ in. long, hairless; plants prostrate. .
 *Euphorbia thymifolia*
 Leaves larger, hairy; plants erect. *E. hirta*
 Leaves green; stems sometimes woody at base. *E. Chamissonis*
 Flowers red and yellow. *Asclepias*
 Sap not milky
 Flowers tubular, pink or purplish
 Flowers borne in heads; small herbs. *Vernonia*
 Flowers not in heads; shrubs or large herbs
 Leaves hairy. *Nicotiana*
 Leaves hairless. *Mirabilis*

- Flowers yellow or white
 - Flowers borne in heads *Synedrella*
 - Flowers not borne in heads
 - Leaves minute, less than ¼ in. long; plants prostrate, often on rocks *Pilea*
 - Leaves larger; plants erect
 - Leaves fleshy, salty to taste, ½–1 in. long
 - Stems reddish; leaves obovate *Portulaca* sp.
 - Stems green; leaves elliptic *Portulaca samoensis*
 - Leaves thin, tasteless
 - Stems reddish; leaves toothed *Fleurya*
 - Stems green; leaves entire
 - Flowers not tubular
 - Flowers down-pointing, borne in terminal spikes *Achyranthes*
 - Flowers lateral, axillary *Phyllanthus*
 - Flowers tubular, 4-petaled *Hedyotis*

- C. Grasses and sedges; flowers small, greenish or brownish; leaves narrow, elongate (See also A and B)
- Stems triangular; inflorescence subtended by leaflike bracts *Cyperus*
 - Stems round; inflorescence not bracteate
 - Rosette plants with solid stems
 - Inflorescence branching, borne on leafless scapes *Fimbristylis*
 - Inflorescence a single subglobose head *Eleocharis*
 - Not rosette plants, or if so, stems hollow
 - Fruit a spiny burr, borne in a spike *Cenchrus*
 - Fruit not spiny
 - Inflorescence a narrow cylindrical spike breaking at joints when old; plants sometimes rosette-forming *Lepturus*
 - Inflorescence not jointed and disarticulating
 - Spikes digitate, 2 or more borne palmately
 - Spikelets with several florets *Eleusine*
 - Spikelets with 1 floret
 - Spikes 3 or more, digitate; fruit cartilaginous-indurate, not rigid. *Digitaria*
 - Spikes 2, conjugate; fruit indurate, rigid *Paspalum*
 - Spikes not digitate
 - Giant grass with long silky panicles 1 ft. or more long; culms woody, often striped with purple *Saccharum*
 - Not as above
 - Spikelets on one side of the rachis
 - Spikes several, distant *Oplismenus*
 - Spikes 1 or 2, close, hidden *Thuarea*
 - Spikelets on both sides of rachis
 - Spikelets in a diffuse panicle; panicle compound, greenish, the spikelets minute *Eragrostis*
 - Spikelets in a stiff panicle which is simple, reddish *Chrysopogon*

TAXONOMIC CHECK-LIST

PTEROPSIDA

Class *FILICINAE*

POLYPODIACEAE

Acrostichum aureum L., Sp. Pl. 1069, 1753.

NAMONUITO: Pesarach Islet, south end, abundant in swamps, July 2, 1957, Stone 2137. N.v. "apeu."

Asplenium nidus L., Sp. Pl. 1079, 1753.

NAMONUITO: Magur Islet, epiphytic, June 29, 1957, Stone 2121. Observed on most islets.

Cyclosorus goggilodus (Schkuhr) Link, Hort. berol. 2: 128, 1833.

NAMONUITO: Pesarach Islet, south end, in swamps and taro patches, July 2, 1957, Stone 2142.

Microsorium scolopendria (Burm. f.) Copeland, Calif. Univ., Pubs., Bot. 16:112, 1929.

NAMONUITO: Magur Islet, in *Pisonia-Eugenia* forest, terrestrial or with climbing rhizomes, June 29, 1957, Stone 2101. NOMWIN: Nomwin Islet, in forest west of village, common, July 3, 1957, Stone 2162. Observed on all islets. A highly variable fern, extremely narrow-segmented forms of which, without much taxonomic basis, have been distinguished as var. *longisecta* H. Ito ex Hosokawa. Since ecological conditions seem to account for dwarf, nonpinnate forms, for the varying thickness of the fronds in various conditions of exposure and moisture, and for absolute size, it seems probable that this variety also is so determined. Glassman (1952:49) places this variety in synonymy with the species. N.v. "tiji."

Nephrolepis biserrata (Sw.) Schott, Gen. Fil. t. 3, 1834.

NAMONUITO: Magur Islet, in *Pisonia-Eugenia* forest, frequent, June 29, 1957, Stone 2094. Observed on all islets. N.v. "amerei."

Class *ANGIOSPERMAE*Subclass *MONOCOTYLEDONAE*

PANDANACEAE

Pandanus sp.

Thirty-eight specimens were collected in the three atolls, all of them of section *Pandanus* and representing a wide array of fruiting and flowering material. Heretofore usually construed as *P. tectorius* Sol. or *P. odoratissimus* L.f., the identity of these specimens must await the completion of current research. However, two readily recognizable edible varieties may be listed here: one, which has been named *P. cylindricus* Kanehira, bears a large, elongate, cylindrical syncarp up to 45 cm. long, composed of flat-topped, smooth-sided, 15-carpellate phalanges. These are nearly always completely sterile, the seeds aborting, and as a result, little if any hard endocarp develops, and the phalanges, after weathering, may be pulled apart with one hand. The other varieties have a tough and almost unbreakable endocarp. This one is commonly called "kinlau," "killau," or "kinnau."

Another edible variety is "fàch-era," which has a large elliptic syncarp, and phalanges with 10-15 carpels; the middle area of each phalange is expanded, and the sides are creased and lined with corky scars. This variety is called "ajbwirik" in the Marshall Islands, where it is abundant. It has been found also in the Ponape district.

The general term for *Pandanus* is "fàch." A variety used only for its leaves, with a shrub habit and conspicuous reddish bark, is called "fàch-en-luta," and is said to be from Rota, in the Marianas. It is apparently sterile. "Fàch" is also the term for an individual phalange of the fruit; "umun" means syncarp or head; "chön" means leaf. "Fàch-en-wan," applied to all the "wild" forms, apparently means "forest pandan." Several of the wild forms are used, on occasion, for food, but "kinlau" and "fàch-era" are the really prized edible fruits.

Besides the coconut palm, the pandanus is perhaps the most useful plant, its leaves providing thatch for roofing and walls, and plaiting materials for mats, handbags, handi-

crafts, and, in ancient times, sails; the root fibers are useful for temporary cordage; and the fruits of certain varieties are a valuable food.

HYDROCHARITACEAE

Thalassia hemprichii (Ehrenb.) Aschers., in Engler and Prantl, Nat. Pflanzenfam. 2(1): 254, 1889.

NOMWIN: Nomwin, lagoon waters, observed.

GRAMINEAE

Chrysopogon aciculatus (Retz.) Trin., Fund. Agrost., 188, 1820.

NAMONUITO: Ulul Islet, observed in village. N.v. "fadil."

Cenchrus echinatus L., Sp. Pl. 1050, 1753.

NAMONUITO: Ulul Islet, observed. A weed on many islets.

Digitaria pruriens (Fisch. ex Trin.) Buse, Miq. Pl. Jungh. 379, 1854.

NAMONUITO: Magur Islet, in burned-over clearing, frequent, often diseased, June 29, 1957, Stone 2123. Observed on several islets.

Eragrostis amabilis (L.) Wight and Arnott ex Hook. and Arnott, Bot. Beechey Voy. 251, 1841.

NAMONUITO: Magur Islet, in village, June 29, 1957, Stone 2106. Observed on all islets. N.v. "namanaman."

Eleusine indica (L.) Gaertner, Fruct. et Seminif. Pl. 1: 8, 1788.

NAMONUITO: Ulul Islet, observed. Magur Islet, in village, June 29, 1957, Stone 2107. A common weed. N.v. "bukúr."

Lepturus repens (Forst.f.) R.Br., Prodr. 207, 1810.

NOMWIN: Nomwin Islet, along strand and in woods, July 5, 1957, Stone 2164. Observed on most islets. The shade forms are larger, more lax, not so markedly rosette forming, and seem to be var. *subulata* Fosberg; the plants found in exposed sandy beach areas tend to be smaller and to form rosettes, as in var. *septentrionalis* Fosberg. These seem to be merely ecologically induced extremes, however.

Oplismenus compositus (L.) Beauv., Ess. Agrost. 54, 1812.

NAMONUITO: Ulul Islet, observed.

NOMWIN: Nomwin Islet, observed. A common ground cover in forests.

Paspalum conjugatum Berg., Act. Helvet. Phys. Math. 7:129, pl. 8, 1762.

NAMONUITO: Ulul Islet, observed in clearings.

Thuarea involuta (Forst.f.) R. and S., Syst. 2: 872, 1817.

NAMONUITO: Ulul Islet, observed. Common on most islets, especially in shaded or partly shaded strand locations.

Saccharum officinarum L., Sp. Pl. 54, 1753.

MURILO: Ruo Islet, observed, cultivated in village. Sugar cane.

CYPERACEAE

Cyperus ferax L.C. Rich., Act. Soc. Hist. Nat. Paris, 1: 106, 1792.

NAMONUITO: Pisarach Islet, in taro swamp, July 2, 1957, Stone 2138.

Eleocharis geniculata (L.) R. and S., System. Veg. 2: 150, 1817.

NAMONUITO: Pisarach Islet, in taro swamp, July 2, 1957, Stone 2139.

Finbristylis atollensis St. John, Pacific Sci. 6: 145-150, fig. 2, 1952.

NAMONUITO: Pisarach Islet, along strand, July 2, 1957, Stone 2152.

MURILO: Ruo Islet, lagoon shore, July 5, 1957, Stone 2180. Observed on all islets. An abundant rosette former, common in exposed coastal situations, frequently in association with *Eragrostis amabilis*. The flowering scapes are highly variable in length, amount of branching, and number of spikes produced.

PALMAE

Cocos nucifera L., Sp. Pl. 1188, 1753.

On all islets. N.v. "nu."

ARACEAE

Alocasia macrorrhiza (L.) Schott ex Schott and Endlicher, Melet. Bot. 1: 18, 1832.

Observed on all islets. N.v. "oht."

Colocasia esculenta (L.) Schott, ex Schott and Endlicher, Melet. Bot. 1: 18, 1832.

NAMONUITO: Pisarach Islet, observed in taro swamps. Cultivated, less common than the following species. The plants on Pisarach were pink petioled, the petioles set with a few basal prickles.

Cyrtosperma chamissonis (Schott) Merrill, Philippine Jour. Sci. Bot. 9: 65, 1914.

Observed on all islets.

AMARYLLIDACEAE

Zephyranthes rosea (Spreng.) Lindl., Bot. Reg. t. 821, 1824.

NAMONUITO: Ulul Islet, cultivated in village. A small pink-flowered ornamental. N.v. "kaje."

Crinum asiaticum L., Sp. Pl. 292, 1753.

Observed on most islets. N.v. "kiup."

TACCACEAE

Tacca leontopetaloides (L.) Ktze., Rev. Gen. Pl. 704, 1891.

Observed on all islets. N.v. "mukmuk."

MUSACEAE

Musa paradisiaca L., Sp. Pl. 1043, 1753.

Observed on all islets. Both plantains and eating bananas are planted, often in or near taro patches, and around villages, on all the inhabited islets. N.v. "ul."

ZINGIBERACEAE

Hedychium coronarium Koenig ap. Retzius, Obs. Bot. 3: 73, 1783.

NAMONUITO: Pisarach Islet, in taro swamp, July 2, 1957, Stone 2145. Flowers white. N.v. "zinzer" (English corruption).

Subclass DICOTYLEDONAE

CASUARINACEAE

Casuarina equisetifolia L., Amoen. Acad. 4: 153, 1759.

NAMONUITO: Ulul Islet, observed. Introduced.

PIPERACEAE

Piper fragile? Benth.

NAMONUITO: Ulul Islet, climbing and terrestrial, abundant, June 22, 1957, Stone 2079. Observed on all islets. N. v. "adogobwe." The determination is doubtful.

Piper ponapense C.DC., Engler's Bot. Jahrb. 56: 502, 1921.

NAMONUITO: Ulul Islet, climbing on breadfruit tree, June 22, 1957, Stone 2078.

NOMWIN: Nomwin Islet, observed.

MURILO: Ruo Islet, observed.

MORACEAE

Artocarpus incisus (Thunb.) L.f., Suppl. Pl. 411, 1781.

Abundant on most islets. N.v. "mai."

Ficus tinctoria Forst.f., Prodr. 76, 1786.

NAMONUITO: Magur Islet, large tree in breadfruit-*Pisonia-Eugenia* forest, seedlings frequent, June 29, 1957, Stone 2103. Observed on most islets. N.v. "mok."

Ficus sp. (aff. *ramentacea* Roxb.?)

NAMONUITO: Pisarach Islet, tree with basally auriculate leaves, sterile, July 2, 1957, Stone 2051.

URTICACEAE

Fleurya ruderalis (Forst.f.) Gaud., Freyc. Voy. Bot. 497, 1826.

NAMONUITO: Magur Islet, weed in village, June 29, 1957, Stone 2127.

Pipturus argenteus (Forst.f.) Wedd., DC. Prodr. 16: 235, 1869.

NAMONUITO: Magur Islet, in shrub woodland near lagoon shore, June 29, 1957, Stone 2125.

Pilea microphylla Liebm., Vidensk. Selsk. Skr. 5(2): 302, 1851.

NAMONUITO: Ulul Islet, terrestrial or on coral boulders or cement walls, observed.

AMARANTHACEAE

Achyranthes aspera L., Sp. Pl. 204, 1753.

NAMONUITO: Ulul Islet, weed in village, June 22, 1957, Stone 2081.

NYCTAGINACEAE

Bougainvillea spectabilis Willd., Sp. Pl. 2: 348, 1799.

MURILO: Ruo Islet, cultivated in village. Native of Madagascar.

Mirabilis jalapa L., Sp. Pl. 177, 1753.

NAMONUITO: Magur Islet, observed in village. Native of Mexico.

Pisonia grandis R. Br., Prodr. 422, 1810.

NAMONUITO: Magur Islet, in *Pisonia-Eugenia-Artocarpus* forest, June 29, 1957, Stone 2098. N.v. "mahk."

PORTULACACEAE

Portulaca oleracea L., Sp. Pl. 445, 1753.

NAMONUITO: Pisarach Islet, in sand near shore, July 2, 1957, Stone 2149.

Portulaca samoensis v. Poelln., Fedde Rep. Sp. Nov. 33: 163, 1933.

NAMONUITO: Pisarach Islet, in sand near shore, July 2, 1957, Stone 2150.

LAURACEAE

Cassytha filiformis L., Sp. Pl. 35, 1753.

Observed on all islets, in savannahs and outer strand forest, climbing parasitically on various species.

HERNANDIACEAE

Hernandia sonora L., Sp. Pl. 981, 1753.

NAMONUITO: Ulul Islet, observed. Present on most islets. N.v. "ojal."

CAPPARIDACEAE

Crataeva speciosa Volkens, Engler's Bot. Jahrb. 31: 463, 1902.

NAMONUITO: Magur Islet, in *Pisonia-Eugenia* forest, small tree with ternate leaves, June 29, 1957, Stone 2095.

MURILO: Ruo Islet, observed. A small tree with ternate leaves, white clawed petals, and pendent, long ovoid, brownish-green and white-flecked fruits which are edible when cooked. Native to Caroline Islands, occasionally cultivated. N.v. "afúch."

LEGUMINOSAE

Caesalpinia pulcherrima (L.) Sw., Obs. Bot. 166, 1791.

MURILO: Ruo Islet, cultivated in village. Native of Tropical America.

Canavalia maritima (Aublet) Thouars, Desv. Jour. Bot. 1: 80, 1813.

NAMONUITO: Magur Islet, observed. Pisarach Islet, lagoon shores, climbing on *Scaevola*, flowers pink, July 2, 1957, Stone 2147. Observed on most islets.

Derris elliptica (Roxb.) Benth, Linn. Soc. Bot., Jour., Suppl. 4: 111, 1860.

NAMONUITO: Ulul Islet, observed in clearings and open woods. N.v. "up."

Sophora tomentosa L., Sp. Pl. 373, 1753.

MURILO: Ruo Islet, lagoon shores, July 5, 1957, Stone 2176.

Vigna marina (Burm.) Merrill, Interp. Herb. Amboinense, 285, 1917.

NOMWIN: Fananu Islet, creeping in woods, July 4, 1957, Stone 2170. N.v. "olu" (Namonuito), "ulu" (Nomwin).

RUTACEAE

Citrus aurantifolia (Christm.) Swingle, Wash. Acad. Sci., Jour. 3: 465, 1913.

NAMONUITO: Pisarach Islet, observed. The lime, cultivated on most islets.

SIMARUBACEAE

Soulamea amara Lamarck, Encycl. Meth. 1: 449, 1785.

NAMONUITO: Ulul Islet, along shore, June 22, 1957, Stone 2075. Pisarach Islet, observed.

Suriana maritima L., Sp. Pl. 284, 1753.

MURILO: Ruo Islet, along lagoon shore, July 5, 1957, Stone 2175.

EUPHORBIACEAE

Codiaeum variegatum (L.) Bl. var. *pictum* (Lodd.) Muell.-Arg., DC. Prodr. 15: 1119, 1866.

NAMONUITO: Ulul Islet, observed in village. A widely cultivated ornamental hedge plant. *Euphorbia Chamissonis* (Klotzsch and Garcke)

Boissier, DC. Prodr. 15(2): 14, 1862.

NAMONUITO: Ulul Islet, on sandy open beach, in full sun, June 22, 1957, Stone 2080. Observed on several islets.

Euphorbia hirta L., Sp. Pl. 454, 1753.

NAMONUITO: Ulul Islet, observed. Present on most islets.

Euphorbia thymifolia L., Sp. Pl. 454, 1753.

NAMONUITO: Ulul Islet, observed.

Phyllanthus niruri L., Sp. Pl. 981, 1753.

NAMONUITO: Magur Islet, in village, June 29, 1957, Stone 2105. N.v. "sigamör." The above three species are common weeds.

Glochidion sp. (aff. *ramiflorum* Forst.).

NOMWIN: Nomwin Islet, abundant low shrubs in forest, seeds red, July 3, 1957, Stone 2163.

NAMONUITO: Ulul Islet, observed, rare. (Collected also on Truk, Stone 2047 and 2055). N.v. "efar." Until a monographic treatment of *Glochidion* appears, it seems best to leave this unnamed.

SAPINDACEAE

Allophylus timorensis (DC.) Blume, Rumphia 3:130, 1847.

NAMONUITO: Magur Islet, in coastal woods, common, June 29, 1957, Stone 2102. Observed on most islets. A ternate-leaved shrub or small tree with spikes of small greenish flowers which produce small globose red berries. N.v. "ngö."

TILIACEAE

Triumfetta procumbens Forst. f., Prodr. 35, 1786.

Observed on all islets. A common prostrate creeper of sandy shores among grasses and low shrubs. Leaves usually somewhat 3-lobed, thick, rough; flowers yellow; fruits prickly. N.v. "ara."

MALVACEAE

Hibiscus rosa-sinensis L., Sp. Pl. 694, 1753.

NAMONUITO: Ulul Islet, observed, ornamental shrub in village.

Hibiscus tiliaceus L., Sp. Pl. 694, 1753.

NAMONUITO: Pissarach Islet, abundant in

swamp, observed. Observed on several islets, along sandy shores.

GUTTIFERAE

Calophyllum Inophyllum L., Sp. Pl. 513, 1753.

NAMONUITO: Magur Islet, large tree on shore, June 29, 1957, Stone 2116. Observed on all islets. N.v. "ráguch."

CARICACEAE

Carica Papaya L., Sp. Pl. 1036, 1753.

Observed on all islets. N.v. "bwebwao" (Magur), "kipwae" (Ono).

BARRINGTONIACEAE

Barringtonia asiatica (L.) Kurz, Asiatic Soc. Bengal, Jour. 45: 70, 1876.

NAMONUITO: Magur Islet, in coastal woods, June 29, 1957, Stone 2117. Observed on most islets. The fruits are used to poison fish. N.v. "kul."

RHIZOPHORACEAE

Bruguiera conjugata (L.) Merrill, Philippine Jour. Sci., Bot. 9: 118, 1914.

This is forma *alba* n. f. In calyci albi differet. Like the species but with white rather than red calyces.

NAMONUITO: Pissarach Islet, in swamp, July 2, 1957, Stone 2144 (type). N.v. "ong."

COMBRETACEAE

Terminalia samoensis Rech., Fedde, Rpt. Sp. Nov. 4: 229, 1907.

NAMONUITO: Magur Islet, shrub in coastal woods, flowers white, drupes red, June 29, 1957, Stone 2113. Observed on most islets. N.v. "kön."

MYRTACEAE

Eugenia javanica Lam., Encycl. Meth. 3: 200, 1789.

NAMONUITO: Magur Islet, in *Pisonia-Eugenia-Artocarpus* forest, June 29, 1957, Stone 2097. Observed on most islets. N.v. "fániep."

ONAGRACEAE

Jussiaea suffruticosa L., Sp. Pl. 388, 1753.

NAMONUITO: Pisarach Islet, in taro swamp, July 2, 1957, Stone 2140.

NOMWIN: Nomwin Islet, observed.

ARALIACEAE

Nothopanax scutellarium (Burm. f.) Merrill, Interp. Herb. Amboinense 409, 1917.

NAMONUITO: Ulul Islet, observed. A common hedge plant in villages.

APOCYNACEAE

Nerium oleander L., Sp. Pl. 229, 1753.

NAMONUITO: Ulul Islet, observed in village.

Ochrosia oppositifolia (Lamarck) K. Schum., Nat. Pflanzenfam. 4(2): 156, 1895.

NAMONUITO: Magur Islet, in coastal forest, abundant, June 29, 1957, Stone 2108. Observed on most islets. A common littoral tree, often tending to form pure stands, with long-ovate glossy leaves, small white linear-petalled flowers, twinned fruits, and abundant milky sap. N.v. "umwá."

Plumeria rubra L., Sp. Pl. 209, 1753.

NAMONUITO: Pisarach Islet, cultivated in village, flowers yellow and white, July 2, 1957, Stone 2146. Observed on Ruo Islet. Native of tropical America. N.v. "séur." (On Truk this word, pronounced "sour," is applied to a species of *Fagraea*; on Ponape, pronounced "sair," to *Fagraea sair* Gilg and Benedict.)

ASCLEPIADACEAE

Asclepias curassavica L., Sp. Pl. 209, 1753.

NAMONUITO: Pisarach Islet, cultivated in village, observed. Magur Islet, in clearing, observed.

CONVOLVULACEAE

Ipomoea Batatas (L.) Poir. ex Lamarck, Encycl. Meth., 6: 14, 1804.

MURILO: Ruo Islet, cultivated. The sweet potato.

Ipomoea gracilis R. Br., Prodr. 484, 1810.

NAMONUITO: Magur Islet, in clearing, June 29, 1957, Stone 2120. Observed on most islets.

Ipomoea pes-caprae (L.) Sweet, Hort. Sub. Lond. 35, 1818.

NAMONUITO: Ulul Islet, observed on sandy beaches. Common on most islets.

BORAGINACEAE

Cordia subcordata Lamarck, Tabl. Encycl. 1: 421, 1791.

NAMONUITO: Magur Islet, in coastal forest, flowers orange, June 29, 1957, Stone 2109. N.v. "anögut."

Messerschmidia argentea (L.) I.M. Johnston Arnold Arboretum Jour. 16: 164, 1935.

NAMONUITO: Magur Islet, in coastal forest, June 29, 1957, Stone 2112. Observed on all islets. N.v. "jin."

VERBENACEAE

Clerodendrum inerme (L.) Gaertner, Fruct. et Seminif. Pl. 1: 271, 1788.

NAMONUITO: Pisarach Islet, scandent shrub in swamp area, July 2, 1957, Stone 2141. N.v. "ula."

Callicarpa cana L., Mant. 2: 198, 1771.

NAMONUITO: Ulul Islet, in forest, June 22, 1957, Stone 2082.

MURILO: Ruo Islet, in forest, July 5, 1957, Stone 2177. A fish poison.

Premna obtusifolia R.Br., Prodr. Fl. N. Holl., 512, 1810.

NAMONUITO: Ulul Islet, in clearing, June 22, 1957, Stone 2077. Pisarach Islet, in swamp, July 2, 1957, Stone 2143. Observed on most islets. For a discussion of the nomenclature of this variable species, see Fosberg, 1953.

SOLANACEAE

Nicotiana tabacum L., Sp. Pl. 180, 1753.

NAMONUITO: Ulul Islet, observed. Magur Islet, June 29, 1957, Stone 2124. N.v. "tabák."

RUBIACEAE

Guettarda speciosa L., Sp. Pl. 991, 1753.

NAMONUITO: Magur Islet, in coastal forest

along beach, flowers white, June 29, 1957, Stone 2110. Observed commonly on most islets. N.v. "mosér."

Hedyotis biflora (L.) Lamarck, Tabl. Encycl. 1: 272, 1791.

NAMONUITO: Magur Islet, weed, June 29, 1957, Stone 2122.

Morinda citrifolia L., Sp. Pl. 176, 1753.

NAMONUITO: Magur Islet, in coastal forest, June 29, 1957, Stone 2099. Observed on all islets. N.v. "nen."

CUCURBITACEAE

Cucurbita Pepo L., Sp. Pl. 1010, 1753.

MURILO: Ruo Islet, observed in cultivation.

NAMONUITO: Magur Islet, cultivated, June 29, 1957, Stone 2126. N.v. "panke."

GOODENIACEAE

Scaevola frutescens (Miller) Krause, Pflanzenreich 54 (IV, 277): 125, 1912.

NAMONUITO: Magur Islet, along strand, June 29, 1957, Stone 2111. Observed commonly on all islets. N.v. "nöt" or "nüt."

COMPOSITAE

Synedrella nodiflora (L.) Gaertner, Fruct. et Seminif. Pl. 2: 456, pl. 171, fig. 7, 1791.

NAMONUITO: Ulul Islet, observed. A common tropical weed.

Vernonia cinerea (L.) Less., Linnaea 4: 291, 1829.

NAMONUITO: Ulul Islet, observed. A weed present on most islets.

Wedelia biflora (L.) DC. ex Wight, Contr. Bot. Ind. 18, 1834.

NAMONUITO: Magur Islet, in forest, June 29, 1957, Stone 2092. Observed on all islets, common. N.v. "atugat" (Magur), "adiat" (Ono).

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